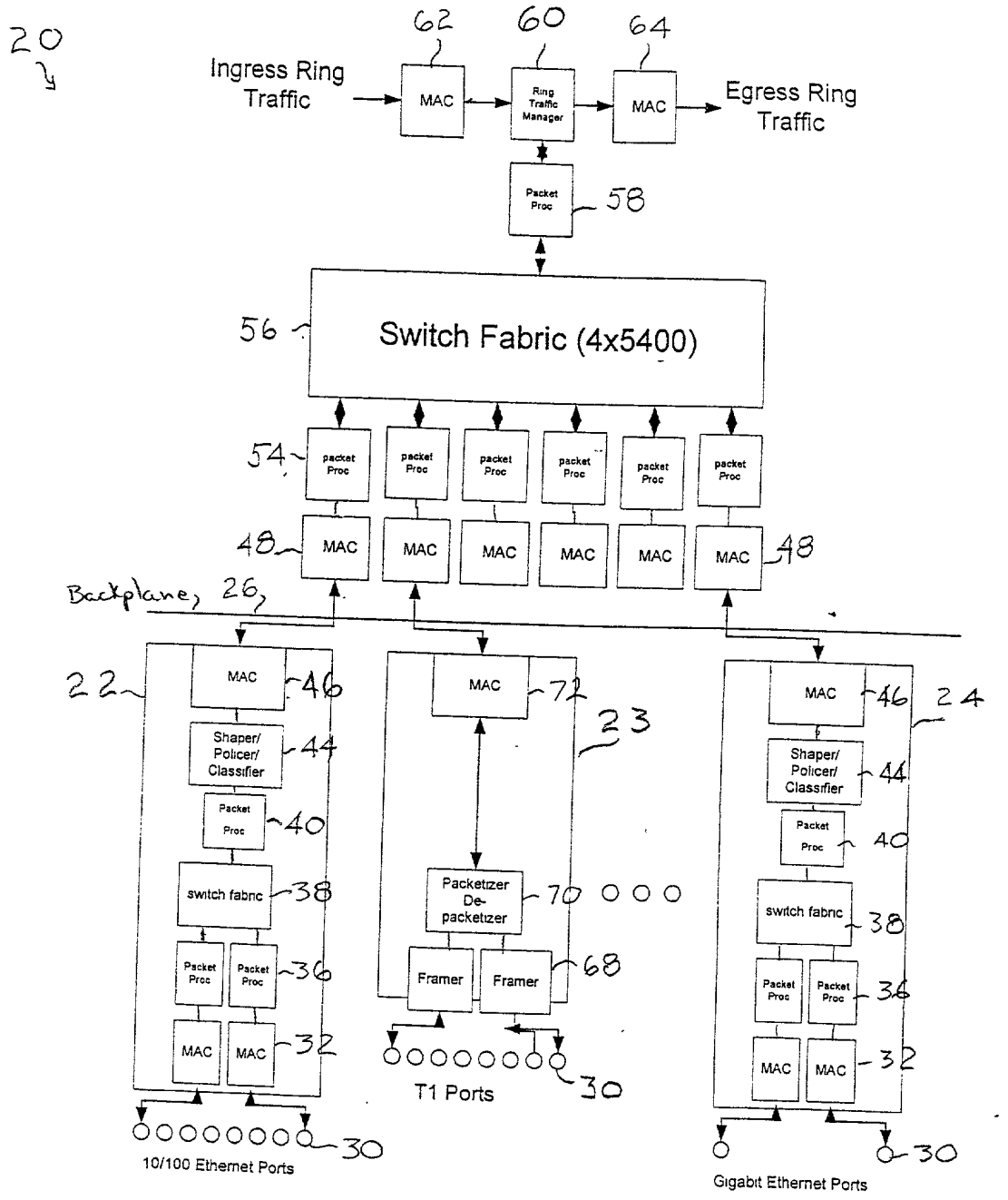
20
Ingress Ring Traffic
62
MAC
60
Ring Traffic Manager
64
MAC
Egress Ring Traffic
Packet Proc
58
56
Switch Fabric (4x5400)
54
packet Proc
48
MAC
Backplane, 26,
22
MAC
46
Shaper/ Policer/ Classifier
44
Packet Proc
40
switch fabric
38
Packet Proc
36
MAC
32
10/100 Ethernet Ports
30
23
MAC
72
Packetizer De-packetizer
70
Framer
68
T1 Ports
24
Gigabit Ethernet Ports

FIG. 1

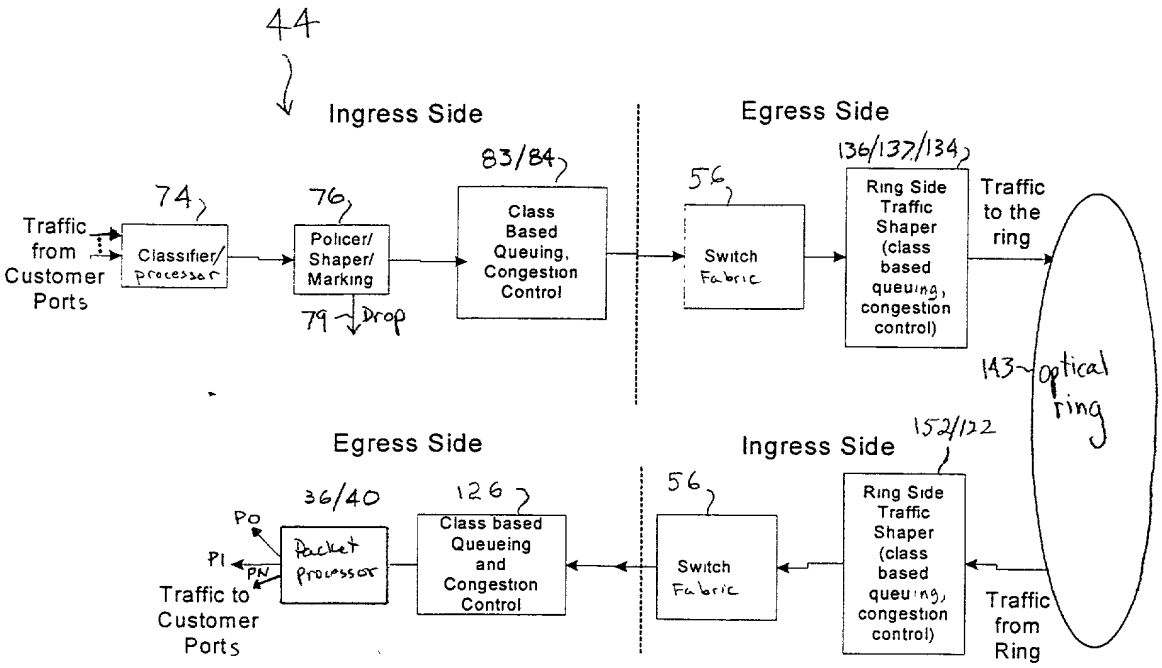
44
Ingress Side
Egress Side
Traffic from Customer Ports
74
Classifier/ processor
76
Policer/ Shaper/ Marking
79
Drop
83/84
Class Based Queuing, Congestion Control
56
Switch Fabric
136/137/134
Ring Side Traffic Shaper (class based queuing, congestion control)
Traffic to the ring
143
optical ring
Egress Side
Ingress Side
152/122
36/40
126
P0
P1
PN
Packet Processor
Class based Queueing and Congestion Control
56
Switch Fabric
Ring Side Traffic Shaper (class based queuing, congestion control)
Traffic to Customer Ports
Traffic from Ring

FIG. 2

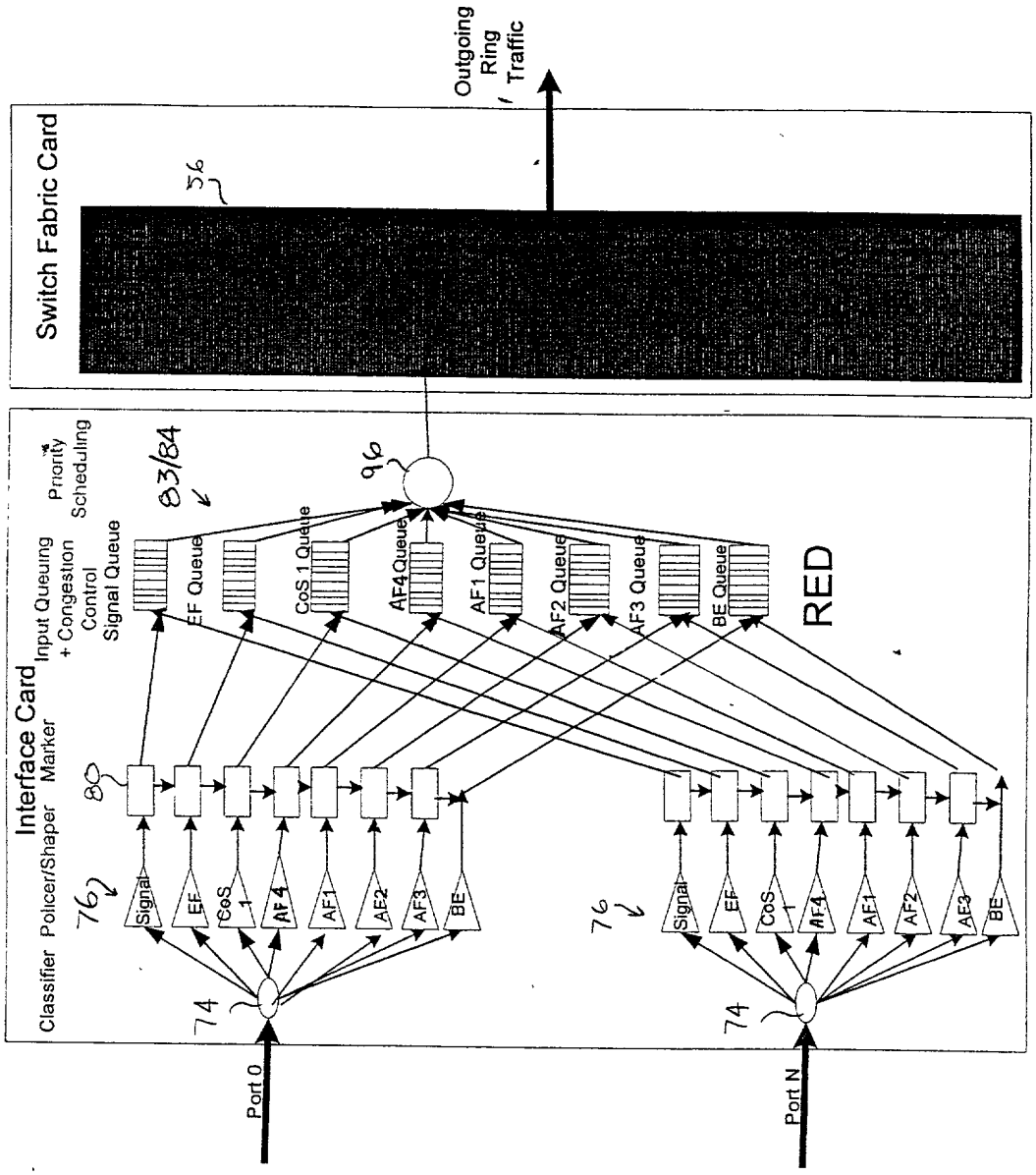
Outgoing Ring Traffic
Switch Fabric Card
56
Interface Card
Classifier Policer/Shaper Marker
Input Queuing + Congestion Control Signal Queue
Priority Scheduling
83/84
96
80
76
74
Signal
EF
CoS 1
AF4
AF1
AF2
AF3
BE
EF Queue
CoS 1 Queue
AF4Queue
AF1 Queue
AF2 Queue
AF3 Queue
BE Queue
RED
Port 0
Port N

FIG. 3

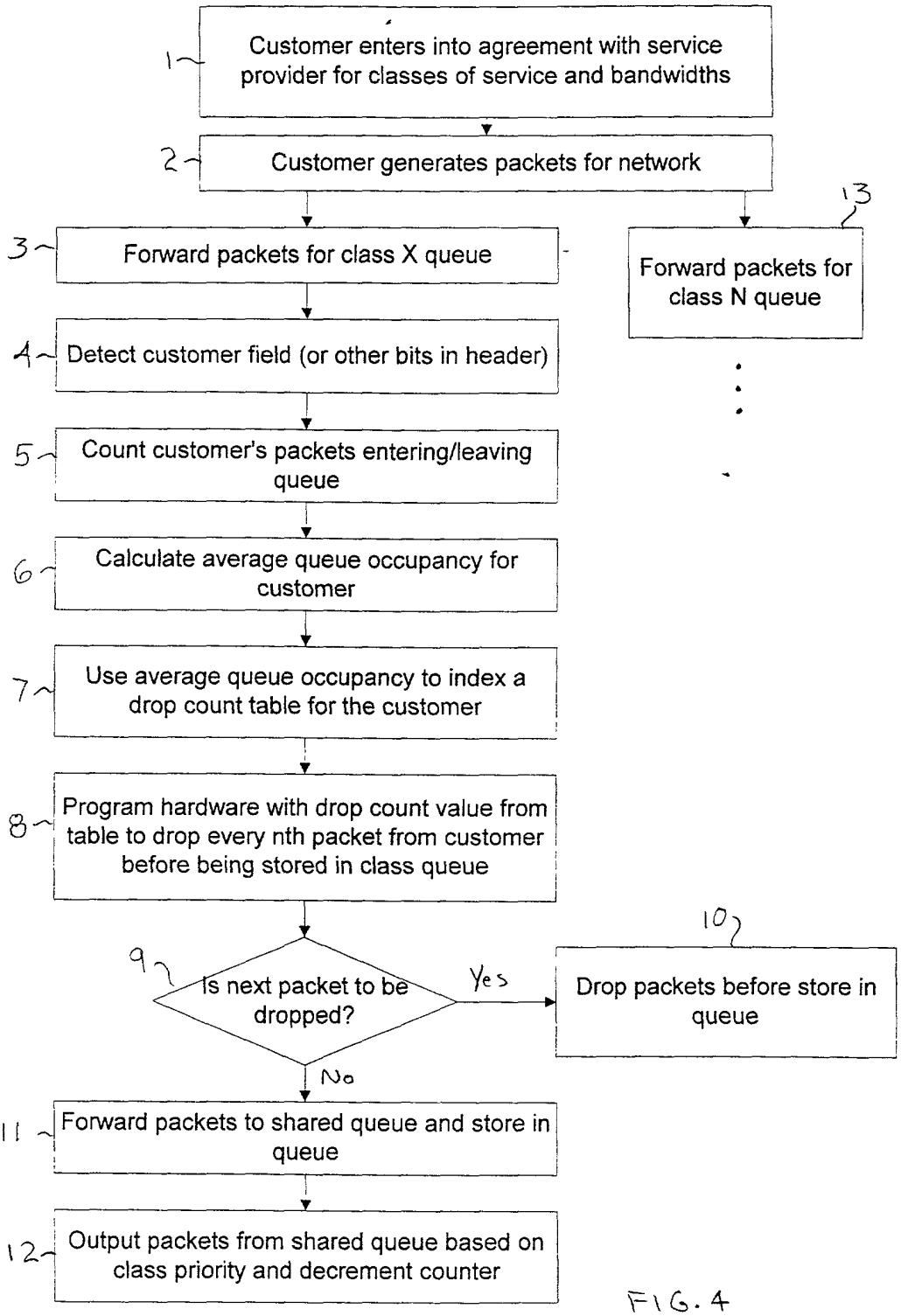

FIG. 4

EXHIBIT 1005, page 5 of 8

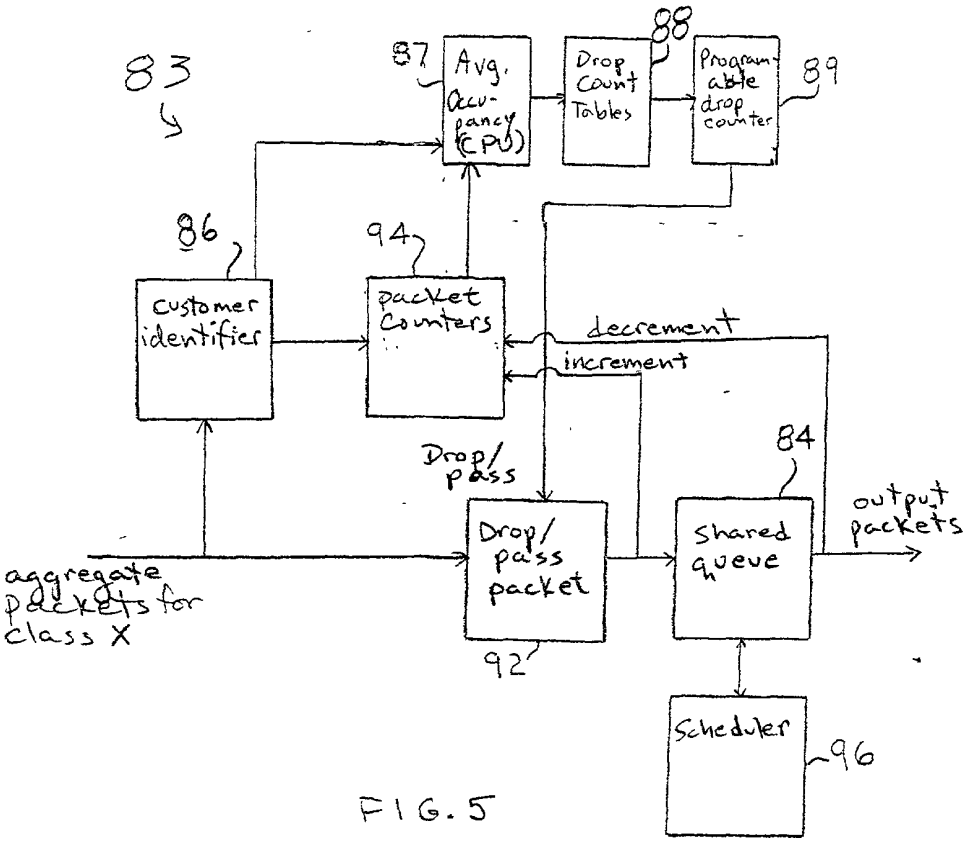

FIG. 5

EXHIBIT 1025, Page 5 of 8

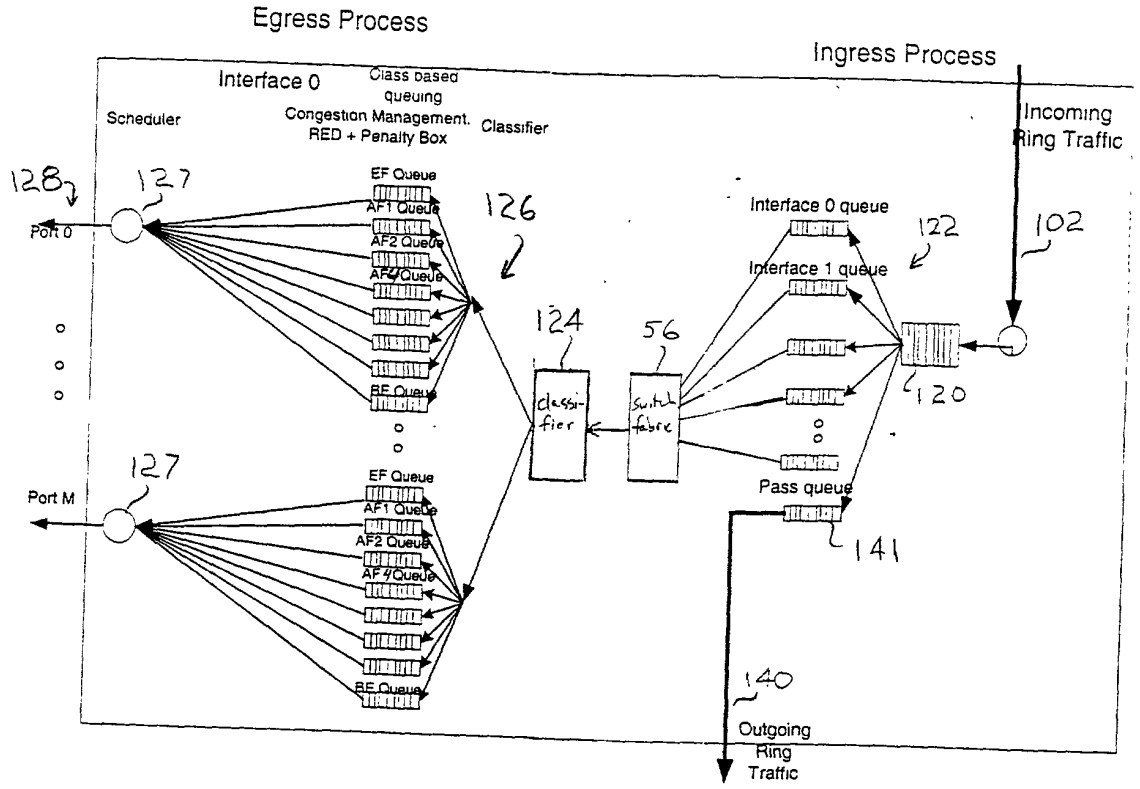

FIG. 6

EXHIBIT 1002 - Page 6 of 8

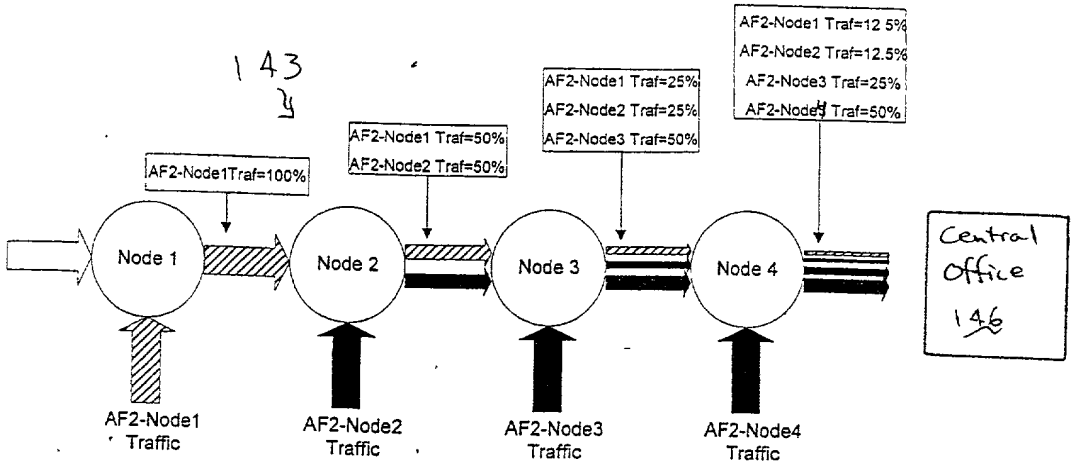

FIG. 7 (PRIOR ART)

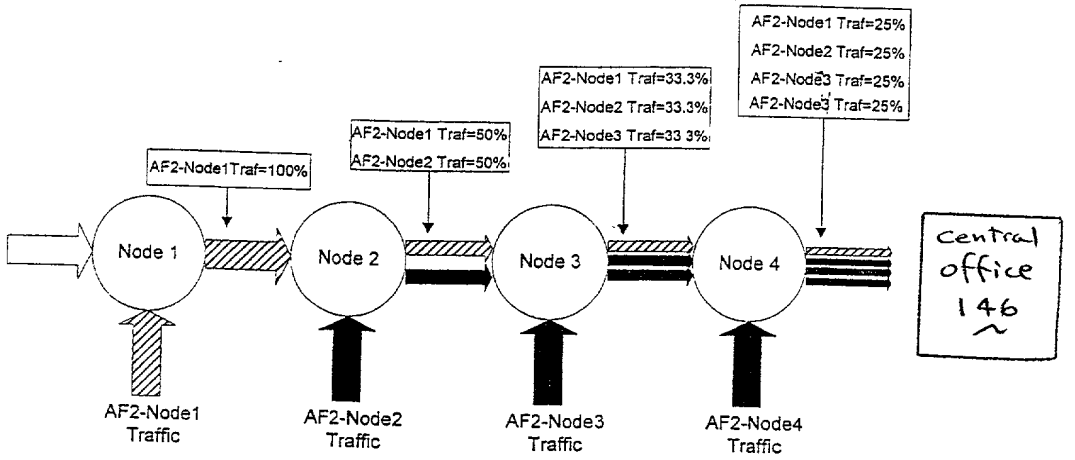

FIG. 9

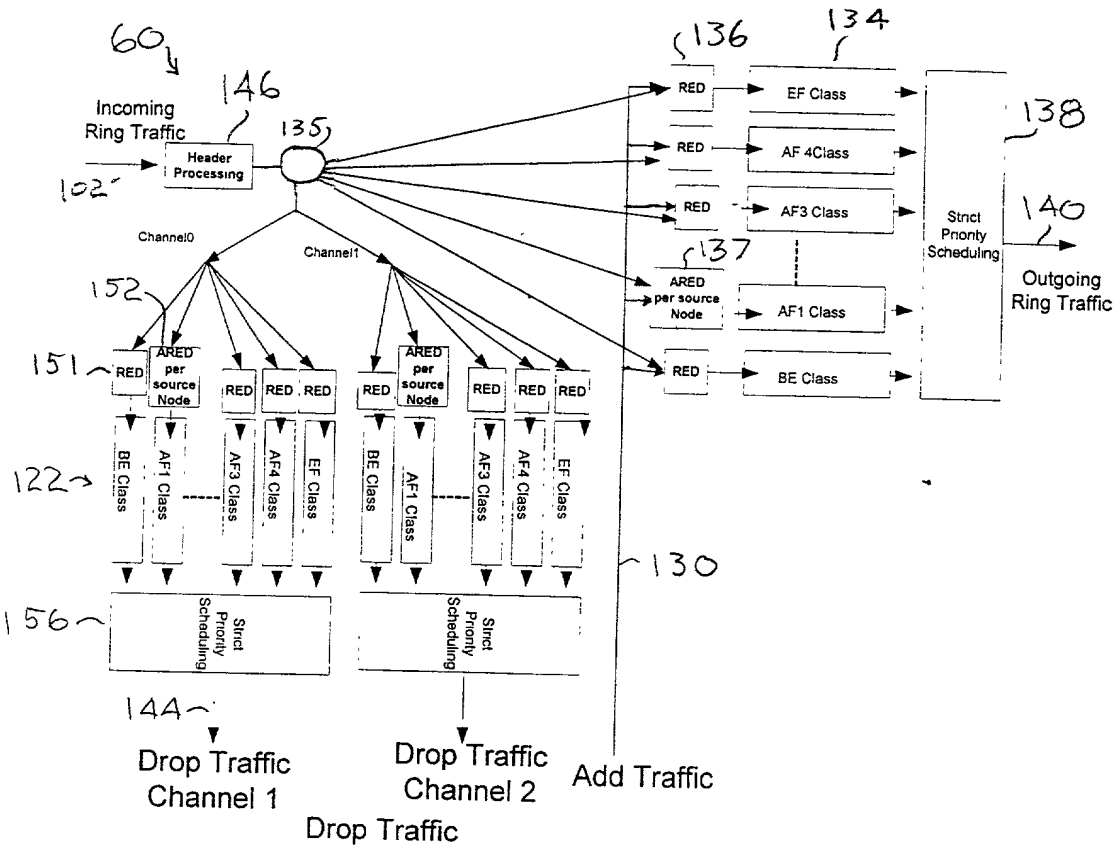
60
146
Incoming Ring Traffic
102
Header Processing
135
136
134
RED
EF Class
AF 4Class
AF3 Class
AF1 Class
BE Class
138
Strict Priority Scheduling
140
Outgoing Ring Traffic
137
AReD per source Node
Channel0
Channel1
152
151
122
156
144
130
Drop Traffic Channel 1
Drop Traffic Channel 2
Add Traffic
Drop Traffic

FIG. 8